Navy Advancement Center
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Advancement Handbook for Aviation Structural Mechanic (Structures)

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PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the Aviation Structural Mechanic (Structures) (AMS) rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are cumulative; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the "*Exam Expectations*" section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by
Navy Advancement Center Department,
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Part 1

Advancement Handbook for AMS3

General AMS *Skill Area*	**Maintenance Of Helicopter Rotor Brakes Systems**
A *skill* you are expected to perform from the General Skill Area above:	Maintain rotor brakes systems
Knowledge you should have to perform this skill:	• Operation of helicopter rotor brake systems • Inspecting and troubleshooting rotor brake systems and related components • Removal and replacement of rotor brakes assembly and related components • Repairing and overhauling of rotor brakes assembly and related components (I-level) • Bench-checking components of rotor brakes assemblies and related components (I-level) • Hydraulic patch test checking and aircraft hydraulic servicing of the rotor brakes hydraulic system • Applying electrical power to aircraft • Functional check procedures for rotor brakes system • Corrosion detection, prevention, and treatment of the rotor brakes and related components
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapter 10 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017) • Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96) • Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17) • Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)

	• Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 2-6 and 8 (NAVAIR 01-1A-509) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operations and functions of any of the helicopter rotor brakes systems, the inspection types and techniques, troubleshooting, and component repair or overhaul procedures. You can also expect questions on general maintenance, performing operational checks, and servicing of helicopter rotor brakes systems. Additional questions could include corrosion identification, prevention, and treatment of components during corrosion inspections. These questions maybe of a general nature or specific to a type of helicopter rotor brakes system.

General AMS *Skill Area*	**Flight Control Systems Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Maintain fixed wing aircraft flight control systems
Knowledge you should have to perform this skill:	• Operation of flight control systems • Identifying types of flight control systems • Inspecting and testing flight control systems • Troubleshooting flight control systems • Removing and replacing components of flight control systems • Rigging of flight control systems • Adjusting and aligning of flight control systems • Hydraulics contamination checking and servicing of flight control systems • Corrosion detection, prevention and treatment of fixed wing flight control systems
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1 and 9 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapters 4 and 5 (NAVEDTRA 12017) • General Manual for Structural Repair, Chapters 2, 4, and 9 (NAVAIR 01-1A-1) • Structural Hardware Manual, Chapters 2 and 13 (NAVAIR 01-1A-8) • Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 2-6 and 8 (NAVAIR 01-1A-509) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of flight controls, their operations and functions on fixed wing aircraft, performing scheduled and non-scheduled inspections, testing, and troubleshooting of flight control systems. You can also expect questions on repairing, removing, replacing, rigging, adjusting, and aligning flight control systems. Additional questions could include hydraulics contamination checking, servicing of flight control systems, corrosion identification, corrosion prevention, and corrosion treatment of components. These questions maybe of a general nature or specific to a type of flight control system.

General AMS *Skill Area*	**Flight Control Surfaces And Flight Control Cable Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Maintain and repair fixed wing aircraft flight control surfaces and control cables
Knowledge you should have to perform this skill:	• Operation of flight control surfaces and control cables • Identifying the functions of flight control surfaces and control cables • Inspecting and testing flight control surfaces and control cables • Troubleshooting flight control surfaces and control cables • Removing and replacing components and related items of flight control surfaces • Damage assessment to flight control surfaces • Identification of materials and hardware used on different flight control surfaces and control cables • Use of special tools/kits in repairs and maintenance of flight control surfaces and control cables • Repairing different flight control surfaces and control cables • Fabrications of flight control cables (I-level) • Rigging flight control surfaces and control cables • Adjusting and aligning flight control surfaces and control cables • Functional check procedures for flight control surfaces and control cables • Applying electrical power to aircraft • Corrosion detection, prevention, and treatment on fixed wing flight control surfaces and flight control cables

References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1 and 9 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017) • Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96) • General Manual for Structural Repair, Chapters 2-9 (NAVAIR 01-1A-1) • Structural Hardware Manual, Chapters 2-5 and 7-9 (NAVAIR 01-1A-8) • Aerospace Metals General Data and Usage Factors, Chapters 2 and 3 (NAVAIR 01-1A-9) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the types, operations, and functions of any of the flight control surfaces and control cables. Additional questions could include inspection types, testing, troubleshooting, removal and installation of different components of the flight control surfaces. You can also expect questions on assessing extent of the damages, repairs, and functional checking of different flight control surfaces. You may also see questions regarding corrosion identification, prevention, and treatment. These questions maybe of a general nature or specific to a type of flight control surface or flight control cable.

General AMS *Skill Area*	**Nose Gear Steering Systems Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Maintain nose gear steering systems
Knowledge you should have to perform this skill:	• Operating nose gear steering systems • Inspecting and testing nose gear steering systems • Removing and replacing nose gear steering components and related systems • Repairing and overhauling nose gear steering system components (I-level) • Bench-checking nose gear steering components (I-level) • Rigging nose gear steering systems • Adjusting and aligning nose gear steering systems • Servicing nose gear steering systems • Performing hydraulics patch tests • Functional check procedures for nose gear steering systems • Applying electrical power to aircraft • Corrosion detection, prevention, and treatment on the nose gear steering systems
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1 and 12 (NAVEDTRA 12338) • Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96) • Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17) • Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509) • All applicable NAVAIR Maintenance Instruction Manuals

	• All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operation of nose gear steering systems and related components, to include inspection types, testing, troubleshooting, and the removal and replacement of different components. Additional questions could include rigging, adjusting, aligning, hydraulic fluid servicing and hydraulic fluid patch testing of the nose gear steering system. You may also see questions regarding corrosion identification, prevention, and treatment. These questions maybe of general nature or specific to a type of nose gear steering systems.

General AMS *Skill Area*	**Landing Gear Systems Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Maintain main and nose landing gear systems
Knowledge you should have to perform this skill:	• Operating main and nose landing gear systems • Troubleshooting main and nose landing gear systems • Removing and replacing main and nose landing gear and related components • Adjusting and aligning main landing gear systems • Adjusting and aligning nose landing gear systems • Rigging of main and nose landing gear systems • Servicing hydraulics systems on main and nose landing gear systems • Servicing pneumatics systems on main and nose landing gear systems • Corrosion detection, prevention, and treatment on main and nose landing gear systems • Applying electrical power to aircraft • Applying hydraulic power to aircraft
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 2-8 and 12 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017) • Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96) • Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17) • Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20) • All applicable NAVAIR Maintenance Instruction Manuals

	• All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operations of main and nose landing gear systems and related components, to include removing, replacing, troubleshooting, adjusting, and aligning main and nose landing gear systems. Additional questions could include servicing the hydraulics systems, pneumatics systems on the main and nose landing systems. You may also see questions regarding corrosion identification, prevention, and treatment of landing gear components and the safe operations of support equipment. These questions maybe of general nature or specific to a type of main or nose landing gear system.

General AMS *Skill Area*	**Aircraft Brake Systems Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Maintain aircraft brake systems
Knowledge you should have to perform this skill:	• Operation of aircraft brake systems • Identifying types of brake systems and different brake assemblies • Troubleshooting brake systems • Aircraft jacking procedures • Removing and replacing brake assemblies and related components • Identifying materials and hardware used on different brake assemblies • Repair procedures (I-level) for different types of brake assemblies • Bench Check (I-level) procedures of different types of brake assemblies • Adjusting and aligning brakes on aircraft • Servicing hydraulics • Applying hydraulic power • Applying electrical power • Corrosion detection, prevention, and treatment on aircraft brake assemblies
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 2, 4, 7, and 12 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapters 4 and 5 (NAVEDTRA 12017) • Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96) • Structural Hardware Manual, Chapters 2-5 and 7-9 (NAVAIR 01-1A-8) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6, and 8 (NAVAIR 01-1A-509)

	• All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about different types of aircraft brake systems and their operation, to include testing, troubleshooting, tear down and build-up of aircraft brake assemblies and related components. You can also expect questions on adjusting, aligning, removing or replacing aircraft brake systems and servicing hydraulics and performing patch tests. In addition, you may see questions regarding safety of aircraft jacking and support equipment use and operation. You can also expect questions on qualifications for applying hydraulics and electrical power to aircraft during maintenance These questions maybe of general nature or specific to a type of aircraft brake systems and support equipment.

General AMS *Skill Area*	**Aircraft Wheels, Tires And Tubes Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Maintain aircraft wheels, tires, and tubes
Knowledge you should have to perform this skill:	• Qualifications for O-level and I-level technicians • Identifying different types of aircraft wheels, tires and tubes • Inspecting, testing, and troubleshooting aircraft tires and wheels during aircraft maintenance • Aircraft jacking procedures • Removing and replacing wheel assembly during aircraft maintenance • Tearing down and building up aircraft wheel assemblies (I-level) • Repairing aircraft wheel assemblies (I-level) • Identifying materials and hardware used on different types of aircraft wheel assemblies (i.e. nuts, bolts, bearings, felts, packing) • Safety procedures for support equipment used in I level and O level maintenance activities • Corrosion detection, prevention, and treatment of aircraft wheel assemblies
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 2 and 11 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapters 4 and 5 (NAVEDTRA 12017) • Basic Handling and Safety Manual, Work Package 10 (NAVAIR 00-80T-96) • Structural Hardware, Chapters 2, 4, 5, 7, and 8 (NAVAIR 01-1A-8) • Maintenance of Aeronautical Anti-friction Bearings, Chapters 2-7, 10, and 11 (NAVAIR 01-1A-503)

	• Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509) • Aircraft Wheels, Chapters 2 and 3 (NAVAIR 04-10-1) • Aircraft Tires and Tubes, Chapters 2-6 (NAVAIR 04-10-506) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instruction and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the qualifications required for O-level and I-level maintenance activities, identifying different types of wheels, tires, tubes, and miscellaneous accessories. You can also expect questions on aircraft tire and wheel maintenance and repair procedures for I-level and O-level activities. Additional questions could include safety procedures, support equipment operations, and corrosion control. These questions maybe of general nature or specific to a type of aircraft wheel, tire, or tube.

General AMS *Skill Area*	**Structural Repair And Inspection**
A *skill* you are expected to perform from the General Skill Area above:	Repairing structural damage to skins, ribs, longerons, stringers, and spars
Knowledge you should have to perform this skill:	• Inspecting aircraft structural skins, ribs, longerons, stringers and spars for damages • Assessing different type of damages and determining what kind of structural patches are required for use on specific aircraft skin • Identifying suitable metals, rivets, and hardware for structural repairs • Removing and replacing aircraft structures and related components • Blueprint reading • Laying out a pattern for a specific structural repair • Use of basic tools and power tools in the fabrication of aircraft panels, doors, ribs , stringers, and skins (I-level) • Adjusting and aligning aircraft panels, doors, and cowlings • Corrosion detection, prevention, and treatment on aircraft panels, cowlings, and attached hardware
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1, 2, and 13 (NAVEDTRA 12338) • Use and Care of Hand Tools and Measuring Tools, Chapters 2, 3, 5, 8, 12-14, 21, 22, 27, 28, and 31 (NAVEDTRA 12085) • Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017) • Blueprint Reading and Sketching, Chapters 1-4 and 8 (NAVEDTRA 12014)

	• General Manual for Structural Repair, Chapters 2- 5, 8, and 9 (NAVAIR 01-1A-1) • Structural Hardware, Chapters 2-5, 7, and 8 (NAVAIR 01-1A-8) • Aerospace metals-General Data and Usage Factor, Chapter 3 (NAVAIR 01-1A-9) • All applicable NAVAIR Structural Repair Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about different types of metals and hardware used to repair aircraft panels, skins, ribs, longerons, and stringers, to include inspecting and assessing structural damage limitation on aircraft structures and panels. You can also expect questions on blueprint reading and flat layout. Additional questions could include adjusting and aligning different types of access panels, doors, and related structural components. You may also see questions regarding corrosion detection, prevention and treatment. These questions maybe of a general nature or specific to a type of aircraft structural repair.

General AMS *Skill Area*	**Aircraft Windshield And Windscreens Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Maintain aircraft windshields and windscreens
Knowledge you should have to perform this skill:	• Inspecting aircraft windshields and windscreens for cracks, damage, and scratches • Identifying damage limitations of aircraft windshields and windscreens • Basic repair and maintenance techniques of aircraft windshields and windscreens • Use of special tools and instruments that aid in finding depth limit on cracks and scratches for aircraft windshields and windscreens • Fabricating aircraft transparent plastic materials (I-level) • Removing and replacing aircraft windshields and windscreens and related hardware • Torque applications on bolts and screws during windshield installations • Cleaning and polishing aircraft windshields and windscreens • Repairing aircraft windshields and windscreens • Maintaining transparent plastics • Handling of transparent plastic materials • Corrosion detection, prevention, and treatment on aircraft windshield and windscreen structural components
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1, 2, and 14 (NAVEDTRA 12338) • General Manual for Structural Repair, Chapters 3, 7, 8 11, and 12 (NAVAIR 01-1A-1)

	• Structural Hardware, Chapters 3, 5, 7, and 8 (NAVAIR 01-1A-8) • Fabrication, Maintenance, and Repair of Plastics, Chapters 2-9 (NAVAIR 01-1A-12) • Naval Aircraft Battle Damage Repair, Chapter 2 (NAVAIR 01-1A-39) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 3 and 6 and Appendices A & B (NAVAIR 01-1A-509) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on basic maintenance, inspection and repair of aircraft windshields and windscreens, to include assessing damage limitations by visual means or the use of special tools. Additional questions could include cleaning, polishing, removing, and replacing aircraft windshields and windscreens. You can also expect questions on performing corrosion control, proper torquing on miscellaneous hardware and safe handling of transparent plastics and related components. These question maybe of general nature or specific to a type of aircraft windshield or windscreen.

General AMS *Skill Area*	**Aircraft Nonmetallic Repairs**
A *skill* you are expected to perform from the General Skill Area above:	Inspect and repair fiberglass, honeycombs, and advance composite materials
Knowledge you should have to perform this skill:	• Qualifications for O-level and I-level technicians • Identifying proper materials for different nonmetallic repairs • Inspecting aircraft fiberglass components for cracks, chips, and delamination • Inspecting honeycomb components for cracks, chips, and separations • Inspecting advance composite components for cracks, chips, and delamination • Repairing fiberglass, honeycomb, and advance composite materials • Use of special equipment to repair different types of nonmetallic components (I-level) • Identifying and selecting proper hardware when replacing different non metallic components • Corrosion detection, prevention, and treatment on attached hardware
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1, 2, and 14 (NAVEDTRA 12338) • Structural Hardware Manual, Chapters 2, 3, 5, 6, and 7 (NAVAIR 01-1A-8) • Fabrication, Maintenance and Repair of Plastics, Chapters 2-9 (NAVAIR 01-1A-12) • Aircraft Radomes and Antenna Covers, Chapters 2, 4, 5, and 6 (NAVAIR 01-1A-22) • Naval Aircraft Battle Damage Repair, Chapter 2 (NAVAIR 01-1A-39)

	• Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2,-6 and Appendices A & B (NAVAIR 01-1A-509) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on inspection, maintenance, and identification of correct materials and hardware for the repair of aircraft nonmetallic components. You can also expect questions about the special equipment required for repairing reinforced fiberglass, honeycomb, and advance composite materials. Questions may also be asked about the qualifications for O-level and I-level technicians. You may also see questions regarding corrosion detection, prevention and treatment on attached hardware. These questions maybe of a general nature or specific to a type of aircraft nonmetallic components.

General AMS *Skill Area*	**Aircraft Paint And Finish Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Preparing metal aircraft surfaces and fiberglass for priming and painting
Knowledge you should have to perform this skill:	• Qualifications for O-level and I-level paint technicians • Concept of aircraft preservation • Inspecting aircraft paint schemes • Identifying paint surface defects and probable cause after painting application • Preparing metallic and nonmetallic structure surfaces for priming and painting • Cutting stencils for aircraft markings • Laying out aircraft markings • Maintaining aircraft spraying equipment • Cleaning of aircraft paint spraying equipment • Tearing down and building up of aircraft paint spraying equipment components • Identifying aircraft paint gun components and their functions • Inspecting aircraft spraying equipment • Adjusting paint gun's spray patterns for proper paint application • Adjusting air pressures for different paint scheme applications • Mixing aircraft primers and paint schemes • Identifying different aircraft paint schemes • Using different types of thinners for reducing aircraft primer and paint viscosity • Different dwell times, drying times in painting applications • Identifying paint surface defects and probable cause after painting application • Adhering to safety procedures in handling hazardous materials

References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 11 and 14 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 7 and Appendices A & B (NAVAIR 01-1A-509) • Navy Occupational Safety and Health (NAVOSH) Program manual, Chapters 3, 15, and 19 (OPNAVINST 5100.23C) • All applicable NAVAIR structural manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the qualifications of aircraft painters for O-level and I-level activities, to include identifying, different types of aircraft spraying equipment and different types of paints and primers. Additional questions could include mixing paints, primers, dwell times, and paint cure times. You can also expect questions on the use and care of painting equipment and personal safety devices. In addition you may be asked about identifying surface defects and their remedies. These questions maybe of a general nature or specific to a type of aircraft paint, finish, on equipment.

General AMS *Skill Area*	**Aircraft Corrosion Control Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Preserve metals by detecting, preventing, and treating aircraft corrosion
Knowledge you should have to perform this skill:	• Theory of corrosion on naval aircraft • Fundamentals of aircraft corrosion, prevention, and treatment • Detecting and identifying different types of corrosion on naval aircraft • Determining the causes of corrosion on different types of metals and remedies to combat corrosion on naval aircraft • Using chemical and mechanical means of corrosion removal • Qualification requirements for operating portable and stationary dry honing machine • Procedures for applying corrosion preventive materials during corrosion maintenance evolution • Fundamentals of aircraft preservation • Types of aircraft preservation • Different levels of preservation and de-preservation used on naval aircraft • Safety procedures for handling and using hazardous materials
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017) • General Manual for Structural Repair, Chapters 4 and 9 (NAVAIR 01-1A-1) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 1-6, 8, 9, and Appendices A, B, C, and D (NAVAIR 01-1A-509) • Preservation of Naval Aircraft, Chapters 1-4 (NAVAIR 15-01-500)

	• Avionics Cleaning and Corrosion Prevention/Control, Chapters 2-5 (NAVAIR 16-1-540) • Navy Occupational Safety and Health (NAVOSH) Program manual, Chapters 3, 15, and 19 (OPNAVINST 5100.23C) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the fundamentals of aircraft corrosion, aircraft corrosion prevention, and aircraft preservation, to include inspecting and identifying types of corrosion on naval aircraft. You can also expect questions on removing corrosion with the aid of portable or stationary dry hone machines versus chemical means. Additional questions may cover corrosion prone areas and levels of preservation applied to naval aircraft. These questions maybe of a general nature or specific to a type of aircraft corrosion.

General AMS *Skill Area*	**Work Center Tool Control**
A *skill* you are expected to perform from the General Skill Area above:	Maintain tool control in the work center
Knowledge you should have to perform this skill:	• Fundamentals of the Tool Control Program • Maintaining the work center tool control program • Identifying marks or etching on tools for work center tool control program • Performing tool control inventories • Inspecting tool containers for missing or broken tools • Inspecting tools and tool containers for Foreign Object Damage,(FOD) • Procedures for checking out and returning tools • Preparing broken or missing tool reports • Investigating missing tool (s) • Ordering new tools
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 16 (OPNAVINST 4790.2G) • The Naval Aviation Maintenance Program, (NAMP), Volume III, Chapter 8 (OPNAVINST 4790.2G) • The Naval Aviation Maintenance Program, (NAMP), Volume V, Chapter 16 (OPNAVINST 4790.2G) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the management and maintenance of the tool control program to include responsibilities and accountabilities of personnel in complying with the tool control program. Additional questions may cover inspecting tools for Foreign Object Damage (FOD), cleanliness of tools, and inventory of tools. You can also expect questions on investigation requirements when tools are reported missing in the work center, how to report broken tools, and ordering replacements. These questions maybe of a general nature or specific to a type of tool control program questions.

General AMS *Skill Area*	**Aircraft Welding Repair And Nondestructive Inspection (NDI)**
A *skill* you are expected to perform from the General Skill Area above:	Perform aircraft welding and nondestructive inspection
Knowledge you should have to perform this skill:	• Theory and fundamentals of aircraft welding • Theory and fundamentals of Non Destructive Inspection (NDI) • Qualification requirements for certification as Welder and qualified Nondestructive Inspection Technician/Operator • Identifying different types of aeronautical welding equipment used on naval aircraft • Identifying the difference between Fusion Welding and Brazing • Selecting aircraft metals for welding compatibility • Identifying different types of equipment used in Nondestructive Inspection (NDI) for Naval Aircraft • Identifying different materials used in Nondestructive Inspection (NDI) • Applying different methods of Nondestructive Inspection, (NDI) for different metals • Inducting of repairable and work request to I-level activity via supply • Corrosion detection, prevention, and treatment on equipment after performing (NDI) or welding repairs
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapter 15 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapters 2-4 (NAVEDTRA 12017)

	• General Manual for Structural Repair, Chapter 10 (NAVAIR 01-1A-1) • Nondestructive Inspection Methods, Chapters 1 and 2 (NAVAIR 01-1A-16) • Aeronautical Equipment Welding, All chapters (NAVAIR 01-1A-34) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 3 and 5 (NAVAIR 01-1A-509) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements for certification as welders and Nondestructive Inspectors to include fundamentals of welding and Nondestructive Inspection (NDI). Additional questions could include the different equipment used for welding and the Nondestructive Inspection (NDI) process. You may also expect questions about identifying metals that are used for aircraft welding and identifying materials and chemicals used for (NDI) applications. In addition you may be asked questions regarding different methods of Nondestructive Inspection (NDI), different techniques of welding and brazing aircraft components, and inducting repairable components for repair. These questions may be of a general nature or specific to a type of welding repair or non-destructive inspection.

General AMS *Skill Area*	**Aircraft Hydraulic Contamination Program**
A *skill* you are expected to perform from the General Skill Area above:	Draw aircraft hydraulic fluid samples and perform aircraft hydraulic fluid sample tests
Knowledge you should have to perform this skill:	• Fundamentals and concepts of the hydraulic contamination program • Training and qualification requirements for hydraulic contamination program • Identifying different types of support equipment used in the hydraulic contamination program • Servicing and operating hydraulic contamination support equipment • Drawing fluids from different hydraulic systems • Hydraulic patch testing • Classifying hydraulic patch test samples • Managing and monitoring the hydraulic contamination program • Safety procedures for handling of hazardous materials
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapters 4-7 (NAVEDTRA 12338) • Aviation Hydraulics Manual, Chapters 1-9 (NAVAIR 01-1A-17) • The Naval Aviation Maintenance Program, (NAMP), Volume V, Chapter 6 (OPNAVINST 4790.2G) • NAVAIROSH Requirements for The Shore Establishment, Chapters 4 and 6 (NAVAIR A1-NAOSH-SAF-000/P-5100)

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the qualification requirements for performing hydraulic contamination patch tests, to include operating, handling, and servicing of support equipment. Additional questions could include types of hydraulic fluid, drawing fluid samples, performing hydraulic patch tests and classifying the hydraulic fluid contamination results. You may also see questions regarding the safe handling and care of hazardous materials. These question maybe of a general nature or specific to a type of hydraulic fluid or support equipment.

General AMS *Skill Area*	**Aircraft Jacking Maintenance**
A *skill* you are expected to perform from the General Skill Area above:	Perform aircraft jacking operation and maintenance
Knowledge you should have to perform this skill:	• Aircraft jacking qualifications • Operating and maintaining different types of aircraft jacks • Identifying different types of aircraft jacks • Applications of different types of aircraft jacks • Complying with safety procedures in lowering and raising different types of aircraft • The capacities and restrictions while jacking aircraft • Requirements for removal and installation of securing devices while raising or lowering aircraft from jacks
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapter 3 (NAVEDTRA 12338) • Index and Application tables for Aircraft Jacks, Chapters 1-5 (NAVAIR 19-70-46) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about identifying, servicing, and maintaining different types of aircraft jacks. Additional questions could include requirements for removing and installing securing devices, safety procedures and support equipment used during aircraft jacking operation. These questions maybe of a general nature or specific to a type of aircraft jack.

Part 2

Advancement Handbook for AMS2

General AMS *Skill Area*	**Maintenance Data System Administration**
A *skill* you are expected to perform from the General Skill Area above:	Review and correct Daily Audit Reports (DAR)
Knowledge you should have to perform this skill:	• Fundamentals and concepts of Maintenance Data System (MDS) Program • Identifying systems or subsystems interrelated under MDS program such as Maintenance Data Reports (MDR), Subsystem Capability Impacting Report (SCIR), Material Report (MR), and Utilization Reporting • Inducting and tracking VIDS/MAFs through complete process for all maintenance actions • Reviewing Daily Audit Reports (DAR), recognizing errors, and taking actions required to correct discrepancies via resubmission to Data Support Facility (DSF) • Recognizing and reviewing information contained in the different Maintenance Data Reports (DAR and MDR-2 through MDR-13) • Reviewing and verifying MDR-2 against the DAR for accuracy and correcting errors found • Identifying and recognizing different reports under the SCIR Program, such as SCIR-3 through SCIR-5, and familiarizing yourself with how they impact the work center and it's ability to perform daily or monthly maintenance
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 1 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume III, Chapters 2 and 3 (OPNAVINST 4790.2)

	• All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the fundamentals, purpose, and concepts of the Maintenance Data System (MDS) and it's application toward the daily workloads. You may also expect questions about different types of MDR, SCIR, MR, and Monthly Utilization Reports. In addition you may see questions on reviewing Daily Audit Reports for accuracy and procedures for making corrections when required. These questions maybe of general nature or specific to a particular type of report under the Maintenance Data System.

General AMS *Skill Area*	**Aircraft Inventory**
A *skill* you are expected to perform from the General Skill Area above:	Perform aircraft inventory inspections
Knowledge you should have to perform this skill:	• Fundamentals and purpose of aircraft inventory inspection • Identifying different types of scheduled and unscheduled maintenance required during inventory inspections • Reviewing aircraft history records, aircraft inventory records ,equipment lists, and aircraft inventory shortage lists • Identifying different aircraft component removal and installation records such as Equipment History Record (EHR), Scheduled Removal Component (SRC) Cards, and Aeronautical Equipment Service Records (AESR), utilizing the Periodic Maintenance Inspection Cards • Procedures and requirements for performance of acceptance and transfer inspections of aircraft • Documenting discrepancies found during acceptance and transfer inspections • Submitting (ADR) Aircraft Discrepancy Reports • Documenting logbook entries of components removed and installed due to high time
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume I, Chapters 12 and 13 (OPNAVINST 4790.2) • The Naval Aviation Maintenance Program (NAMP) Volume III, Chapters 6 and 7 (OPNAVINST 4790.2)

	• All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about aircraft logbooks, logbook entries, and inspection requirements, when performing aircraft inventory inspections. You can also expect questions about different aircraft history records such as EHR, SRC, and AESR cards utilizing the PMIC and MRC decks. In addition you may see questions relating to the identification of aircraft components that have high times and when they should be removed and replaced. These questions maybe of general nature or specific to a particular type of history record, aircraft inspection, or inventory procedure.

General AMS *Skill Area*	**Precision Measuring Equipment**
A *skill* you are expected to perform from the General Skill Area above:	Route precision measuring equipment for calibration
Knowledge you should have to perform this skill:	• Fundamentals, concepts, and operation of the Naval Aviation Metrology and Navy Calibration program • Maintaining calibrated equipment utilizing different formats and recall listings under the MEASURE Program • Understanding the different formats used under the MEASURE program (i.e. Inventory Format 310 List, Inventory Format 311 List, Inventory Format 350, Recall Format 805, and Recall Format 802) and how to use them for management of the calibration program • Understanding calibration cycles and intervals of different equipment requiring calibration • Packaging, handling, and routing of equipment requiring calibration • Routing of paper work via the chain of command when extensions or deviations are necessary for any of the calibrated equipment
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume I, Chapter 10 (OPNAVINST 4790.2) • The Naval Aviation Maintenance Program (NAMP) Volume V, Chapter 19 (OPNAVINST 4790.2)

	• Department of the Navy Policy and Responsibility for Test, Measurement, Monitoring, Diagnostic Equipment and Systems, and Metrology and Calibration (METCAL) (SECNAVINST 3906.6) • Naval Aviation Metrology and Calibration Program (NAVAIRINST 13640.1) • Radiac Policy and Procedures Manual Volume II, Part 2 (NAVSEA SE700-AA-MAN-210) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the calibration schedules, program management, and induction procedures for calibrated equipment to the maintenance activity, as well as field activities and rework facilities for repairs. You can also expect questions about different management tools (i.e. inventory formats and recall lists), deviation and extension requirements, and routing for approval from designated authorities. These questions maybe of a general nature or specific to a particular type of precision measuring equipment or process.

Part 3

Advancement Handbook for AMS1

General AMS S*kill Area*	**Corrosion Control**
A *skill* you are expected to perform from the General Skill Area above:	Apply Aircraft Primers and Paints
Knowledge you should have to perform this skill:	• Qualification requirements for aircraft painter for O-level or I-level maintenance activities • Maintaining spray equipment and related tools used in paint application • Mixing of paints and primers • Adjusting consistency and viscosity of paints and primers • Setting air pressure regulators and adjusting painting equipment • Utilizing proper distance and correct angle of spray equipment during paint and primer application • Identifying different surface materials that require painting (i.e. metal, plastics, fiberglass, and composites) and choosing proper technique • Safety procedures as per Material Safety Data Sheet (MSDS), Hazardous Material Users guide (HAZMAT), and NAVOSH Instructions and OSHA Instruction
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017) • Aviation Structural Mechanic (H&S) 3 & 2, Chapter 14 (NAVEDTRA 12338) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 7 and Appendices A & B (NAVAIR 01-1A--509) • Aircraft Radomes and Antenna Covers, Chapter 6 (NAVAIR 01-1A-22)

	• Navy Occupational Safety And Health (NAVOSH) Program Manual , Chapters 3, 15, and 19 (OPNAVINST 5100-23C) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and safety standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about qualification requirements, care and maintenance of spray equipment and tools, and mixing of paints and primers. In addition, you can expect questions about proper techniques relating to different types of materials and paints. These questions maybe of general nature or ask about a specific type of paint or primer and its application technique.

General AMS *Skill Area*	**Quality Deficiency Reports**
A *skill* you are expected to perform from the General Skill Area above:	Prepare Quality Deficiency Reports
Knowledge you should have to perform this skill:	• Fundamentals and concepts of Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) and instructions governing Quality Deficiency Reports (QDR) • Recognizing and categorizing types of QDRs that apply to discrepancies found • Initiating, drafting, submitting, and routing Quality Deficiency Reports • Packaging, handling, storing, and shipping of QDR exhibits • Tracking and updating Quality Deficiency report status • Communicating with the Cognizant Field Activity (CFA) and documenting final results
References you should study to gain the knowledge you need to perform this skill:	• Aviation Structural Mechanic (H&S) 3 & 2, Chapter 3 (NAVEDTRA 12338) • Aviation Maintenance Ratings, Chapter 1 (NAVEDTRA 12017) • Navy Quality Deficiency Report Program (SECNAVINST 4855.6) • Product Quality Deficiency Report Program (SECNAVINST 4855.5) • Naval Aviation Maintenance Program (NAMP) Volume V, Chapter 10 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the NAMDRP program and processing of different types of Quality Deficiency Reports, procedures, chain of command, and personnel involved in initiating the reports. You can also expect questions about proper packaging and supply interaction while processing the exhibits. You may also see questions regarding responsibilities of the originator, supply, and the CFA during the process of a Quality Deficiency Report. These questions maybe of general nature or specific to a type of NAMDRP report.

General AMS *Skill Area*	**Emergency Reclamation**
A *skill* you are expected to perform from the General Skill Area above:	Manage the Emergency Reclamation Program
Knowledge you should have to perform this skill:	• Fundamentals and concepts of the Emergency Reclamation Program as it applies to both I-level and O-level maintenance activity • Reporting procedures of crash damaged aircraft to the proper chain of command • Organizing materials, equipment, and personnel required to reclaim crash damaged aircraft • Activating the reclamation team for the activity assigned to reclaim the crash damaged aircraft • Reviewing, updating, and assuring availability of priority removal list of aircraft components and all instructions required for an emergency reclamation evolution • Processing of MAFS and documenting all reclaimed components during the evolution • Training requirements of the emergency reclamation program • Arranging transportation from and to the site of crash damaged aircraft, whether it crashed at an airfield or at sea
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 9 (NAVAIR 01-1A-509) • Avionics Cleaning and Corrosion Prevention Manual, Chapters 2 and 5 (NAVAIR 16-1-540) • Naval Aviation Maintenance Program (NAMP) Volume I, Chapter 10 (OPNAVINST 4790.2)

	• Naval Aviation Maintenance Program (NAMP) Volume V, Chapter 14 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance Instruction Manual • All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the Aircraft Emergency Reclamation Program, its guidelines, procedures, and team concepts. In addition you may see questions about materials and equipment necessary to manage the Emergency Reclamation Program. You can also expect to see questions concerning the chain of command and the organization responsibilities when there are crash damaged aircraft. These questions maybe of general nature or specific to a particular type of reclamation action.

Part 4

Advancement Handbook for AMSC

General AMSC *Skill Area*	**Corrosion Control**
A *skill* you are expected to perform from the General Skill Area above:	Perform aircraft corrosion control detection, identification, treatment, prevention, and aircraft preservation
Knowledge you should have to perform this skill:	• Qualification requirements for the Corrosion Control Program • Selecting materials for specific types of aircraft • Detecting, identifying, and treating corrosion • Mixing and applying aircraft paints and primers • Preventing corrosion and preserving aircraft and equipment • Maintaining corrosion control tools and equipment • Researching instructions, manuals, and publications pertaining to specific aircraft • Researching and complying with hazardous material instructions and safety regulations
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017) • Aviation Structural Mechanic (H&S) 3 & 2, Chapters 11 and 12 (NAVEDTRA 12338) • Aircraft Weapons Systems Cleaning and Corrosion Control, All Chapters (NAVAIR 01-1A-509) • Avionics Cleaning and Corrosion Prevention Manual, Chapters 2-4 and 6-10 (NAVAIR 16-1-540) • Naval Aviation Maintenance Program (NAMP) Volume V, Chapter 14 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance Instruction Manual • All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about corrosion detection, identification, treatment, prevention, and about preservation of naval aircraft. You can also expect questions on procedures for mixing and applying paints and primers and maintenance of painting equipment. In addition, you may see questions relating to publications, manuals, or instructions for specific guidelines relating to a particular aircraft. These questions maybe of general nature or of specific to a particular type of material, equipment, or aircraft.

General AMSC *Skill Area*	**Maintenance Administration**
A *skill* you are expected to perform from the General Skill Area above:	Perform maintenance and production control briefs
Knowledge you should have to perform this skill:	• Responsibilities of maintenance and production control supervisors • Qualification requirements for maintenance and production control supervisor (i.e. project priority codes, certify aircraft safe for flight, work load priority, logs and records, etc.) • Planning and conducting maintenance and production meetings • Reviewing of Daily Workload Reports • Setting priorities for daily work load • Briefing and debriefing of flight crews and maintenance personnel • Preparing and reviewing aircraft manifests for mission accuracy
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapters 1, 2, and 5 (NAVEDTRA 10217) • Naval Aviation Maintenance Program (NAMP) Volume I, Chapters 7, 8, 11, 12, and 15-17 (OPNAVINST 4790.2) • Naval Aviation Maintenance Program (NAMP) Volume III, Chapters 1- 9 (OPNAVINST 4790.2) • Naval Aviation Maintenance Program (NAMP) Volume V, Chapter 10 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance Instruction Manuals • All activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the responsibilities and operations of Production control and Maintenance control. You may also see questions regarding aircraft logbooks, discrepancy reports, daily workloads, and schedules of different types of aircraft and support equipment inspections. In addition, you can expect questions about Technical Directives (TDs), Airframes Change (AFCs), and Airframes Bulletin (AFBs), and documentation and incorporation, along with briefing and debriefing of flight crews and maintenance personnel. These questions maybe of general nature or specific to a maintenance/production control action or function.

General AMSC *Skill Area*	**Maintenance Administration**
A *skill* you are expected to perform from the General Skill Area above:	Prepare and submit Aircraft Status Reports
Knowledge you should have to perform this skill:	• Fundamentals and concepts of Aircraft Status Reporting • Reviewing of Aircraft Discrepancy Books (ADB) and Aircraft Log books • Preparing and reviewing Aircraft Material Readiness Reports (AMRR) • Submitting and routing the daily AMRR via chain of command
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 1 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume I, Chapters 10, 12, and 13 (OPNAVINST 4790.2) • The Naval Aviation Maintenance Program (NAMP) Volume III, Chapter 6 (OPNAVINST 4790.2) • All Applicable NAVAIR Maintenance Instruction Manuals • All Activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the concepts and fundamentals of aircraft status reports, Aircraft Discrepancy Books (ADB), and Aircraft Material Readiness Reports (AMRR). You can also expect questions about preparing, reviewing, submitting, and routing of Aircraft Status Reports. These question maybe of general nature or specific to a type of status report.

General AMSC *Skill Area*	**Maintenance Administration**
A *skill* you are expected to perform from the General Skill Area above:	Schedule, coordinate, and document aircraft and support equipment inspections
Knowledge you should have to perform this skill:	• Fundamentals and concepts of aircraft and support equipment inspections as it pertains to the planned maintenance system • Concepts and operation of the Support Equipment Standardization System,(SESS) Program • Scheduling, coordinating, and documenting different types of aircraft and support equipment inspections
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapters 1, 4, and 5 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume I, Chapters 10, 12, 13, and 16 (OPNAVINST 4790.2) • The Naval Aviation Maintenance Program (NAMP) Volume III, Chapters 1, 2, 6, and 9 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance Instruction Manuals • All activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the fundamentals and concepts of aircraft and support equipment inspections, the planned maintenance system, and the Support Equipment Standardization system (SESS) program. In addition, you can expect questions about scheduling, coordinating, and documenting specific inspections. These questions maybe of general nature or specific to a type of aircraft or support equipment inspection.

General AMSC *Skill Area*	**Maintenance Administration**
A *skill* you are expected to perform from the General Skill Area above:	Incorporate and document Technical Directives (TD), Airframes Changes (AFC), and Airframes Bulletins (AFB)
Knowledge you should have to perform this skill:	• Handling of technical directives, airframes changes, and bulletins • Processing , routing, and disseminating of technical directives, airframes changes, and bulletins upon receipt • Documenting incorporation of technical directives, airframes changes, and bulletins relating to an activity's aircraft, engines, and support equipment • Ordering parts and kits required to incorporate the technical directives, airframes changes and bulletins • Reviewing technical directives, airframes changes, and bulletins for accuracy and applicability to aircraft, engines, and support equipment
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 2 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume I, Chapters 10, 12, and 13 (OPNAVINST 4790.2) • The Naval Aviation Maintenance Program (NAMP) Volume III, Chapters 3, 6, 7, and 9 (OPNAVINST 4790.2) • The Naval Aviation Maintenance Program (NAMP) Volume V, Chapter 11 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on different types of Technical Directives, Airframes Changes, and Airframes Bulletins. You can also expect questions about the handling, responsibility, routing and incorporation of technical directives, airframes changes, and airframes bulletins. In addition, you may see question relating to documenting logbook entries and reviewing technical directives, airframe changes, and airframes bulletins for accuracy and applicability. These questions maybe of general nature or of specific to a type of technical directive, airframes change, or airframes bulletin.

General AMSC *Skill Area*	**Logistics**
A *skill* you are expected to perform from the General Skill Area above:	Maintain precision measuring equipment
Knowledge you should have to perform this skill:	• Maintaining and managing calibrated equipment utilizing different formats and recall listings under the MEASURE Program • Processing of calibrated equipment through different levels of maintenance, (i.e. I-level activity, Field level repair, or Depot level site) • Packaging, handling, and shipping of calibrated equipment via supply when doing a "repair and return" work request outside the activity • Naval Aviation Metrology and Navy Calibration program and instructions/manuals that govern (PME) and calibrated equipment • Routing paper work via chain of command when deviations or extensions are necessary for calibrated equipment
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume I, Chapter 10 (OPNAVINST 4790.2) • The Naval aviation Maintenance Program (NAMP) Volume V, Chapter 19 (OPNAVINST 4790.2)

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about calibration schedules, program management and induction procedures of calibrated equipment to the maintenance activity, as well as field activity, and rework facility for repairs. You can also expect questions about different management tools (i.e. inventory formats and recall listings), deviation and extension requirements of calibrated equipment, and routing for approval from designated authorities. These questions maybe of general nature or specific to a particular type of Precision measuring equipment or process.

General AMSC *Skill Area*	**Logistics**
A *skill* you are expected to perform from the General Skill Area above:	Maintain and validate Aircraft Maintenance Material Readiness Lists (AMMRL)
Knowledge you should have to perform this skill:	• Maintaining and validating aircraft maintenance material readiness lists (AMMRL) for accuracy • Submitting additions and deletions to the AMMRL when necessary • Acquiring aircraft support equipment as required via chain of command utilizing the IMRL program • Surveying excess, lost, worn, or broken aircraft support equipment • Applying the Aircraft Materials Readiness Lists as the governing instruction for Individual Material Lists (IMRL), Tailored Outfitting List (TOL), and Calibration Program
References you should study to gain the knowledge you need to perform this skill:	• Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 12017) • The Naval Aviation Maintenance Program (NAMP) Volume I, Chapters 10, 12, and 15 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance Instruction Manuals • All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about maintaining and validating Aircraft Maintenance Materials Readiness List and related programs. You may also expect questions about program management as it pertains to acquiring, tailoring, and surveying support equipment. These questions maybe of a general nature or specific to any portion of the Aircraft Maintenance Material Readiness Lists (AMMRL) program.

Appendix A

References Used in This Advancement Handbook

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
AMS3	NAVEDTRA 12338	Aviation Structural Mechanic (H&S) 3 & 2	Chapters 1-15 and Appendix I	Note 1
	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 2-5	Note 1
	NAVEDTRA 12014	Blueprint Reading and Sketching	Chapters 1-4 and 8	Note 1
	NAVEDTRA 12085	Use and Care of Hand Tools and Measuring Tools	Chapters 2-5, 8, 12, 13, 21, 22, 28, and 31	Note 1
	NAVAIR A1-NAOSH-SAF-000/P-5100	NAVAIROSH Requirements For The Shore Establishment	Chapters 4 and 6	Note 1
	NAVAIR 00-80T-96	Basic Handling & Safety Manual	Work Package 10	Note 1
	NAVAIR 01-1A-1	General Manual for Structural Repair	Chapters 2-12	Note 1
	NAVAIR 01-1A-8	Structural Hardware Manual	Chapters 2-9 and 13	Note 1
	NAVAIR 01-1A-9	Aerospace Metals General Data and Usage Factors	Chapters 2 and 3	Note 1
	NAVAIR 01-1A-12	Fabrication, Maintenance and Repair of Plastics	Chapters 2-9	Note 1
	NAVAIR 01-1A-16	Nondestructive Inspection Methods	Chapters 1 and 2	Note 1
	NAVAIR 01-1A-17	Aviation Hydraulics Manual	Chapters 1-9	Note 1
	NAVAIR 01-1A-20	Hose and Tube Manual	Chapters 2-9	Note 1
	NAVAIR 01-1A-22	Aircraft Radomes and Antenna Covers	Chapters 2, 4, 5, and 6	Note 1

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
AMS3 (Cont)	NAVAIR 01-1A-34	Aeronautical Equipment Welding	Chapters 1, 3-5, 7, 8, and Appendices A, B, C, D, E, F, G, and H	Note 1
	NAVAIR 01-1A-39	Naval Aircraft Battle Damage Repair	Chapter 2	Note 1
	NAVAIR 01-1A-503	Maintenance of Aeronautical Anti-friction Bearings	Chapters 2-11	Note 1
	NAVAIR 01-1A-509	Aircraft Weapons Systems Cleaning and Corrosion Control	Chapters 1-9 and Appendices A, B, C, & D	Note 1
	NAVAIR 04-10-1	Aircraft Wheels	Chapters 2 and 3	Note 1
	NAVAIR 04-10-506	Aircraft Tires and Tubes	Chapters 2-6	Note 1
	NAVAIR 15-01-500	Preservation of Naval Aircraft	Chapters 1-4	Note 1
	NAVAIR 16-1-540	Avionics Cleaning and Corrosion Prevention/Control	Chapters 2-5	Note 1
	NAVAIR 19-70-46	Index and Application tables for Aircraft Jacks	Chapters 1-5	Note 1
	OPNAVINST 4790.2G Volume I	The Naval Aviation Maintenance Program, (NAMP)	Chapter 16	Note 2
	OPNAVINST 4790.2G Volume III	The Naval Aviation Maintenance Program, (NAMP)	Chapter 8	Note 2
	OPNAVINST 4790.2G Volume V	The Naval Aviation Maintenance Program, (NAMP)	Chapters 6 and 16	Note 2
AMS2	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 1 and 5	Note 1

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
AMS2 (Cont)	NAVAIRINST 13640.1	Naval Aviation Metrology and Calibration Program	All chapters	Note 1
	NAVSEA SE700-AA-MAN-210	Radiac Policy and Procedures Manual	All chapters	Note 1
	OPNAVINST 4790.2G Volume I	The Naval Aviation Maintenance Program (NAMP)	Chapters 10, 12, and 13	Note 2
	OPNAVINST 4790.2GVolume III	The Naval Aviation Maintenance Program, (NAMP)	Chapters 2, 3, 6, and 7	Note 2
	OPNAVINST 4790.2G Volume V	The Naval Aviation Maintenance Program, (NAMP)	Chapter 19	Note 2
	SECNAVINST 3906.6	Department of the Navy Policy and Responsibility for Test, Measurement, Monitoring, Diagnostic Equipment and Systems, and Metrology and Calibration (METCAL)	All chapters	Note 1
AMS1	NAVEDTRA 12338	Aviation Structural Mechanic (H&S) 3 & 2	Chapters 3 and 14	Note 1
	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 1 and 4	Note 1
	NAVAIR A1-NAOSH-SAF-000/P-5100	NAVAIROSH Requirements For The Shore Establishment	Chapters 3, 15, and 19	Note 1
	NAVAIR 01-1A-22	Aircraft Radomes and Antenna Covers	Chapter 6	Note 1
	NAVAIR 01-1A-509	Aircraft Weapons Systems Cleaning and Corrosion Control	Chapters 7, 9, and Appendices A and B	Note 1

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
AMS1 (Cont)	NAVAIR 16-1-540	Avionics Cleaning and Corrosion Prevention/Control	Chapters 2 and 5	Note 1
	OPNAVINST 4790.2G Volume I	The Naval Aviation Maintenance Program (NAMP)	Chapter 10	Note 2
	OPNAVINST 4790.2G Volume V	The Naval Aviation Maintenance Program, (NAMP)	Chapters 10 and 14	Note 2
	SECNAVINST 4855.6	Navy Quality Deficiency Report Program	All pages	Note 1
AMSC	NAVEDTRA 12338	Aviation Structural Mechanic (H&S) 3 & 2	Chapters 11 and 12	Note 1
	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 1-5	Note 1
	NAVAIRINST 13680.1	Depot Level Rework Program for Support Equipment End Items	All pages	Note 1
	NAVAIR 01-1A-509	Aircraft Weapons Systems Cleaning and Corrosion Control	All chapters and Appendices A, B, C and D	Note 1
	NAVAIR 16-1-540	Avionics Cleaning and Corrosion Prevention/Control	Chapters 2-4 and 6-10	Note 1
	NAVSEA SE700-AA-MAN-210, Volume II, Part 2	Radiac Policy and Procedures Manual	All pages	Note 1
	OPNAVINST 3960.16	Navy Test and Monitoring Systems	All pages	Note 2
	OP43P6B	Metrology Automated System for Uniform Recall and Reporting (MEASURE)	All pages	Note 1

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
AMSC (Cont)	OPNAVINST 4790.2G Volume I	The Naval Aviation Maintenance Program (NAMP)	Chapters 7, 8, 10-13, and 15-17	Note 2
	OPNAVINST 4790.2G Volume III	The Naval Aviation Maintenance Program, (NAMP)	Chapters 1-9	Note 2
	OPNAVINST 4790.2G Volume V	The Naval Aviation Maintenance Program, (NAMP)	Chapters 10, 11, 14, and 19	Note 2
	SECNAVINST 3906.6	Department of the Navy Policy and Responsibility for Test, Measurement, Monitoring, Diagnostic Equipment and Systems, and Metrology and Calibration (METCAL)	All pages	Note 1

LEGEND:

Note 1 — To order, MILSTRIP to NAVICP PHILA (Stock No. from NAVSUP P2002) or via INTERNET http://www.nll/navsup.navy.mil/

Note 2 — INTERNET - http://neds.nebt.daps.mil/